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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/867,465	05/31/2001	Kunihiro Mitsutake	209253US2S	6874

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EXAMINER

KOSOWSKI, ALEXANDER J

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 01/15/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/867,465

Applicant(s)

MITSUTAKE ET AL.

Examiner

Alexander J Kosowski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 1-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-31 is/are rejected.
- 7) ☒ Claim(s) 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,5,8 6) ☐ Other:

DETAILED ACTION

- 1) Claims 28-31 are presented for examination. Claims 1-27 are withdrawn in view of the election to restriction received 12/10/03.

Election/Restrictions

- 2) Applicant's election with traverse of claims 28-31 in Paper No. 7 is acknowledged. The traversal is on the ground(s) that there is not a serious burden on the examiner to search and examine the entire application. This is not found persuasive because each claim set is directed towards a separately usable invention. Different searches would be required for each claim set to encompass the different limitations, and it would therefore be a serious burden on the examiner.

The requirement is still deemed proper and is therefore made FINAL.

Specification

- 3) The disclosure is objected to because of the following informalities:

On page 2, line 4, the phrase "production Even" should read --production. Even--.

On Page 2, line 10, the phrase "100wafers" should read --100 wafers--.

On Page 3, line 4, the phrase "such as Internet" should read --such as the Internet--.

On Page 3, line 12, the phrase "manufacture product" should read --manufacture the product--.

On page 25, line 11, the phrase "it s" should read --it is--.

On page 47, line 12, the phrase "to Internet" should read --to the Internet--.

Appropriate correction is required.

Claim Objections

- 4) Claim 31 is objected to because of the following informalities:

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Referring to claim 31, line 4, the word “management” should read --managing--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6) Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 28, it is not clear to the examiner based on lines 12-13 whether applicant is claiming that the managing means are maintaining the determined electric power value while designing the production equipment or whether the production equipment is being designed for the determined electric power value.

Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 31, the preamble of the claim is directed towards “managing production equipment”. However, lines 13-14 of the claim refer to “manufacturing production equipment”. It is unclear to the examiner which of these limitations is to be examined.

7) Claim 31 recites the limitation "said transferred information" in line 9. There is insufficient antecedent basis for this limitation in the claim.

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8) Regarding claims 28, 30 and 31, the phrase "substantially" in line 3 of all three claims renders the claims indefinite because the scope of the claims is unclear. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

9) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10) Claims 28 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Togashi et al (U.S. Pat 5,691,906), further in view of Iino (U.S. Pat. 5,873,251).

Referring to claim 28, Togashi teaches a production equipment management system comprising a virtual production line providing a computer with substantially the same functions as for a real production line actually manufacturing products (col. 3 lines 9-35), transferring means configured to transfer various information about said real production line to said virtual production line (col. 3 lines 17-29). In addition, Togashi teaches that the simulator may be used to calculate a factor of production and to determine the effects of changing that factor (col. 3 lines 48-58). However, Togashi does not explicitly teach computing means configured to compute a time dependency of power usage based on said transferred information, determining means configured to determine a set power usage value used for a production line based on the time dependency obtained by said means for computing the time dependency, nor managing means configured to design production equipment based on at least one of said determined electric power value and power usage value.

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Iino teaches a management system comprising a simulator which receives plant model inputs and is capable of determining time dependent electric power usage and controlling a factory based upon the determined power usage profiles (col. 13 line 56 through col. 14 line 52).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to compute a time-dependency of electric power usage, determine a power usage value based on the time-dependency, and manage a system based on the determined power usage value in the system taught by Togashi since this would allow for an optimal load distribution plan to be created (Iino, col. 14 lines 14-16) which would allow operators to view and adjust an operation schedule and determine a cost evaluation for the production facility (Iino, col. 14 lines 43-52), which examiner notes could be utilized to keep electricity usage below a determined power level.

Referring to claim 30, the claim contains the same limitations of claim 28 except it is directed toward a method rather than a system. The rejected system of claim 28 above could inherently be applied to an identical method. Therefore, referring to claim 30, see rejection of claim 28 above.

Referring to claim 31, the claim varies from claim 30 in that the last limitation has been changed to “manufacturing production equipment” rather than “managing production equipment”.

Examiner notes that one skilled in the art would have found it obvious to modify the invention as such since it is common knowledge to manufacture an apparatus using a management technique, and management makes the manufacturing obvious. Therefore, referring to claim 31, see rejection of claim 30 above.

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11) Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Togashi and Iino as taught above, further in view of Burrows et al (U.S. Pat 4,725,970).

Referring to claim 29, Togashi and Iino teach the system above. However, they do not explicitly teach that said production equipment is production line wiring or production line piping.

Burrows teaches a method of simulating and managing wiring and piping in a production system (col. 1 line 46 through col. 2 line 24).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to design production line wiring or piping in the system taught by Togashi and Iino since this would allow modeling of the wire or pipe design (Burrows, col. 2 lines 1-4), which would allow production equipment to be designed according to a tested model.

Conclusion

12) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fox (U.S. pat 4,141,069) – teaches a time dependent power demand control system.

Son (U.S. Pat 5,850,345) – teaches a simulation apparatus.

Nakazawa (U.S. Pat 5,974,246) – teaches a method of determining optimum product design parameters.

Sakakibara et al (U.S. Pat 6,021,359) – teaches a method of determining an inspection schedule for a production line.

Teranishi et al (U.S. Pat 6,434,440) – teaches a production estimate management system.

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Rangachari et al (U.S. Pat 6,470,227) – teaches a method for automating a manufacturing process.

13) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander J Kosowski whose telephone number is 703-305-3958.

The examiner can normally be reached on Monday through Friday, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 703-308-0538. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. In addition, the examiner's RightFAX number is 703-746-8370.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Alexander J. Kosowski
Patent Examiner
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A handwritten signature in black ink, appearing to read 'L. Picard', with a stylized, cursive script.

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100